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EXAMINER	
DEAN, RAYMOND S	
ART UNIT	**PAPER NUMBER**
2684	

DATE MAILED: 01/30/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/828,149	WASENIUS, REIDAR	
	Examiner	Art Unit	
	Raymond S. Dean	2684	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *20 December 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *19 - 50* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *19 - 50* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *09 April 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. Applicant's request for reconsideration of the finality of the rejection of the last Office action is persuasive and, therefore, the finality of that action is withdrawn.

Response to Arguments

2. Applicant's arguments filed December 20, 2005 have been fully considered but they are not persuasive.

Examiner respectfully disagrees with Applicant's assertion on Page 13, 2nd Paragraph of the Remarks "Therefore, looking to this described embodiment it would appear to be improper...". The mobile devices of Beck can perform the function of advertising services and using services (See Column 4 lines 5 – 8) in addition to performing wireless communication with each other.

The mobile devices can also access other needed services, such as printing services by communicating with other mobile devices in the ad hoc network or group. The mobile devices will therefore have expanded functionality, such as the additional printing function, in addition to the advertising and using functions (See Arguments in the Rejection of Claim 1 of the Office Action dated September 23, 2005). Beck therefore also teaches the wireless terminals sharing the at least one function which is not common to each of the wireless terminals so that a total number of functions available to be performed by the individual wireless terminals, in addition to performing

the wireless communication with each other, is greater than a total number of functions available to be performed by the individual wireless terminals when the individual wireless terminals are not in communication with one another.

Regarding Lunsford, Examiner agrees with Applicant's assertion that Lunsford teaches data synchronization. The data synchronization is used in the Bluetooth system to enable mobile Bluetooth devices to exchange information with each other (See Lunsford Column 1 lines 25 – 27) thus it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Beck in view of Haartsen with the decision method of Lunsford for the purpose of enabling the users of handheld Bluetooth terminals to request and retrieve desired information that other users of other handheld Bluetooth terminals possess as taught by Lunsford.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 19 – 50 are rejected under 35 U.S.C. 103(a) as being unpatentable over Beck et al. (US 6,604,140) in view of Haartsen et al. (Proceedings of IEEE, Volume 88, Issue 10, Oct 2000, Pages 1651 – 1661) and if further view of Lunsford et al. (US 6,901,434).

Regarding Claim 19, Beck teaches a wireless communication system, comprising: a plurality of wireless terminals, the terminals being in wireless communication with each other including providing sharing of functions between the terminals (Figure 1, Column 3 lines 41 – 43, Column 3 lines 52 – 53, Column 4 lines 6 – 13, Column 4 lines 63 – 67, Column 5 lines 1 – 22, Column 5 lines 38 – 60, the mobile devices (service users) can access other needed services, that said service users do not possess, by communicating with other mobile devices (service advertisers) that have said services via an ad hoc network, said service users will therefore have access to a greater number of services thus expanding their functionality), individual wireless terminals performing at least one function in addition to performing wireless communication with each other, which is common to the individual terminals (Figure 1, Column 3 lines 41 – 43, Column 3 lines 52 – 53, Column 4 lines 6 – 13, Column 4 lines 61 – 63, the mobile devices can perform the function of advertising services and using services), and performing at least one function which is not common to individual wireless terminals (Column 4 lines 63 – 67, Column 5 lines 1 – 22, Column 5 lines 38 – 60, the mobile devices (service users) can access other needed services, that said service users do not possess, by communicating with other mobile devices (service advertisers) that have said services via an ad hoc network, this means that said service advertisers possess additional functionalities that said service users do not possess); and the wireless terminals sharing the at least one function which is not common to each of the wireless terminals so that a total number of functions available to be performed by the individual wireless terminals, in addition to performing the wireless

communication with each other, is greater than a total number of functions available to be performed by the individual wireless terminals when the individual wireless terminals are not in communication with one another (Column 4 lines 63 – 67, Column 5 lines 1 – 22, Column 5 lines 38 – 60, the mobile devices (service users) can access other needed services, that said service users do not possess, by communicating with other mobile devices (service advertisers) that have said services via an ad hoc network, said service users will therefore have access to a greater number of services thus expanding their functionality); and wherein sharing of the at least one function which is not common to the wireless terminals may occur between the wireless terminals (Column 4 lines 63 – 67, Column 5 lines 1 – 22, Column 5 lines 38 – 60, the mobile devices (service users) can access other needed services, that said service users do not possess, by communicating with other mobile devices (service advertisers) that have said services via an ad hoc network, said service users will therefore have access to a greater number of services thus expanding their functionality).

Beck does not teach a plurality of wireless terminals formed into a predefined group in which users of the plurality of wireless terminals decide to form the group and after formation of the group the plurality of wireless terminals are recognized by an identification thereof as being members of the group and the wireless terminals determine if each of the wireless terminals belonging to the predefined group has a recognized identification and upon confirmation by the wireless terminals that the wireless terminals have the recognized identification, a group session is initiated with the predefined group.

Haartsen teaches a plurality of wireless terminals into a predefined group (Page 1655, Section B (Piconets), 1st Paragraph lines 1 – 8, the Bluetooth devices can move into the neighborhood of preexisting or predefined piconets thus a Bluetooth system has predefined groups) and after formation of the group, the plurality of wireless terminals are recognized by an identification thereof as being members of the group (Page 1655, Section A (Establishing Connections), 4th Paragraph, a piconet will not be formed unless the identification of the terminals is determined thus after said piconet is formed said terminals will be recognized by said identification as being members of said piconet) and the wireless terminals determine if each of the wireless terminals belonging to the predefined group has a recognized identification (Page 1655, Section A (Establishing Connections), 4th Paragraph, Section B (Piconets), 1st Paragraph lines 6 – 10, any of the slaves can become masters thereby enabling said slaves to determine if the other terminals in the predefined group has a recognized identification) and upon confirmation by the wireless terminals that the wireless terminals have the recognized identification, a group session is initiated with the predefined group (Page 1655, Section A (Establishing Connections), 4th Paragraph, when the wireless terminals have responded with the identification information said wireless units can be paged and a piconet can be formed thereby enabling a group session to be established).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the predefined group and group communication method taught by Haartsen in the ad hoc network of Beck as the ad hoc network of Beck uses a Bluetooth protocol and for the purpose of enabling each mobile device to autonomously

identify other mobile devices so as to build up a flexible communication network as taught by Haartsen.

Beck in view of Haartsen does not teach a predefined group in which users of the plurality of wireless terminals decide to form the group.

Lunsford teaches users of the plurality of wireless terminals deciding to form a group (Column 2 lines 45 – 59, Column 3 lines 17 – 49).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Beck in view of Haartsen with the decision method of Lunsford for the purpose of enabling the users of handheld Bluetooth terminals to request and retrieve desired information that other users of other handheld Bluetooth terminals possess as taught by Lunsford.

Regarding Claim 20, Beck in view of Haartsen and in further view of Lunsford teaches all of the claimed limitations recited in Claim 19. Beck further teaches wherein the wireless communication is by a low power radio frequency link (Column 3 lines 52 – 53, a Bluetooth network comprises low power radio frequency links).

Regarding Claim 21, Beck in view of Haartsen and in further view of Lunsford teaches all of the claimed limitations recited in Claim 19. Beck further teaches wherein one of the at least one additional function of the group of wireless terminals is a software application (Column 5 lines 38 – 64, the additional services are software applications).

Regarding Claim 22, Beck in view of Haartsen and in further view of Lunsford teaches all of the claimed limitations recited in Claim 19. Haartsen further teaches

wherein the group includes a minimum of two and a maximum of seven terminals (Page 1655, Section B (Piconets), 1st Paragraph lines 1 – 8, a typical piconet can include a minimum of two and a maximum of seven terminals).

Regarding Claim 23, Beck in view of Haartsen and in further view of Lunsford teaches all of the claimed limitations recited in Claim 19. Haartsen further teaches wherein the group is established by one wireless terminal of the plurality of wireless terminals becoming a master, which scans by wireless communication to locate other of the plurality of wireless terminals to join the group as slaves (Page 1655, Section B (Piconets) 1st Paragraph lines 1 – 8).

Regarding Claim 24, Beck teaches a wireless communication system, comprising: a plurality of wireless terminals, the terminals being in wireless communication with each other including providing sharing of functions between the terminals (Figure 1, Column 3 lines 41 – 43, Column 3 lines 52 – 53, Column 4 lines 6 – 13, Column 4 lines 63 – 67, Column 5 lines 1 – 22, Column 5 lines 38 – 60, the mobile devices (service users) can access other needed services, that said service users do not possess, by communicating with other mobile devices (service advertisers) that have said services via an ad hoc network, said service users will therefore have access to a greater number of services thus expanding their functionality), individual wireless terminals performing at least one function in addition to performing wireless communication with each other, which is common to the individual terminals (Figure 1, Column 3 lines 41 – 43, Column 3 lines 52 – 53, Column 4 lines 6 – 13, Column 4 lines 61 – 63, the mobile devices can perform the function of advertising services and using

services), and performing at least one function which is not common to individual wireless terminals (Column 4 lines 63 – 67, Column 5 lines 1 – 22, Column 5 lines 38 – 60, the mobile devices (service users) can access other needed services, that said service users do not possess, by communicating with other mobile devices (service advertisers) that have said services via an ad hoc network, this means that said service advertisers possess additional functionalities that said service users do not possess); and the wireless terminals sharing the at least one function which is not common to each of the wireless terminals so that a total number of functions available to be performed by the individual wireless terminals, in addition to performing the wireless communication with each other, is greater than a total number of functions available to be performed by the individual wireless terminals when the individual wireless terminals are not in communication with one another (Column 4 lines 63 – 67, Column 5 lines 1 – 22, Column 5 lines 38 – 60, the mobile devices (service users) can access other needed services, that said service users do not possess, by communicating with other mobile devices (service advertisers) that have said services via an ad hoc network, said service users will therefore have access to a greater number of services thus expanding their functionality); and wherein sharing of the at least one function which is not common to the wireless terminals may occur between the wireless terminals (Column 4 lines 63 – 67, Column 5 lines 1 – 22, Column 5 lines 38 – 60, the mobile devices (service users) can access other needed services, that said service users do not possess, by communicating with other mobile devices (service advertisers) that have

said services via an ad hoc network, said service users will therefore have access to a greater number of services thus expanding their functionality).

Beck does not teach a plurality of wireless terminals formed into a predefined group in which users of the plurality of wireless terminals decide to form the group wherein the group is established by one wireless terminal of the plurality of wireless terminals becoming a master, which scans by wireless communication to locate other of the plurality of wireless terminals to join the group as slaves and after formation of the group the plurality of wireless terminals are recognized by an identification thereof as being members of the group, wherein at least one wireless terminal of the group may be removed by a remainder of wireless terminals of the group, and the wireless terminals determine if each of the wireless terminals belonging to the predefined group has a recognized identification and upon confirmation by the wireless terminals that the wireless terminals have the recognized identification, a group session is initiated with the predefined group.

Haartsen teaches a plurality of wireless terminals into a predefined group (Page 1655, Section B (Piconets), 1st Paragraph lines 1 – 8, the Bluetooth devices can move into the neighborhood of preexisting or predefined piconets thus a Bluetooth system has predefined groups) wherein the group is established by one wireless terminal of the plurality of wireless terminals becoming a master, which scans by wireless communication to locate other of the plurality of wireless terminals to join the group as slaves (Page 1655, Section B (Piconets), 1st Paragraph lines 1 – 8) and after formation of the group, the plurality of wireless terminals are recognized by an identification

thereof as being members of the group (Page 1655, Section A (Establishing Connections), 4th Paragraph, a piconet will not be formed unless the identification of the terminals is determined thus after said piconet is formed said terminals will be recognized by said identification as being members of said piconet) wherein at least one wireless terminal of the group may be removed by a remainder of wireless terminals of the group (Page 1654, Section III (AD HOC CONNECTIVITY), in a typical Bluetooth system, members of an established piconet can deny a new member's request to join said piconet, the new member is blocked or removed from the established piconet by the members of said piconet), and the wireless terminals determine if each of the wireless terminals belonging to the predefined group has a recognized identification (Page 1655, Section A (Establishing Connections), 4th Paragraph, Section B (Piconets), 1st Paragraph lines 6 – 10, any of the slaves can become masters thereby enabling said slaves to determine if the other terminals in the predefined group has a recognized identification) and upon confirmation by the wireless terminals that the wireless terminals have the recognized identification, a group session is initiated with the predefined group (Page 1655, Section A (Establishing Connections), 4th Paragraph, when the wireless terminals have responded with the identification information said wireless units can be paged and a piconet can be formed thereby enabling a group session to be established).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the predefined group and group communication method taught by Haartsen in the ad hoc network of Beck as the ad hoc network of Beck uses a

Bluetooth protocol and for the purpose of enabling each mobile device to autonomously identify other mobile devices so as to build up a flexible communication network as taught by Haartsen.

Beck in view of Haartsen does not teach a predefined group in which users of the plurality of wireless terminals decide to form the group.

Lunsford teaches users of the plurality of wireless terminals deciding to form a group (Column 2 lines 45 – 59, Column 3 lines 17 – 49).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Beck in view of Haartsen with the decision method of Lunsford for the purpose of enabling the users of handheld Bluetooth terminals to request and retrieve desired information that other users of other handheld Bluetooth terminals possess as taught by Lunsford.

Regarding Claim 25, Beck in view of Haartsen and in further view of Lunsford teaches all of the claimed limitations recited in Claim 19. Beck further teaches wherein at least one additional function becomes available only when there is a minimum number of the plurality of wireless terminals (Column 4 lines 6 – 9, Column 4 lines 63 – 67, Column 5 lines 1 – 22, Column 5 lines 38 – 60, the mobile devices (service users) can access other needed services, that said service users do not possess, by communicating with other mobile devices (service advertisers) that have said services via an ad hoc network, said service users will therefore have access to a greater number of services thus expanding their functionality, the number of mobile devices can be any number thus there can be a minimum number of said mobile devices).

Regarding Claim 26, Beck in view of Haartsen and in further view of Lunsford teaches all of the claimed limitations recited in Claim 19. Beck further teaches wherein at least one additional function becomes available and is available for a single terminal of the group after having been a member of the group (Column 4 lines 63 – 67, Column 5 lines 1 – 22, Column 5 lines 38 – 60, the mobile devices (service users) can access other needed services, that said service users do not possess, by communicating with other mobile devices (service advertisers) that have said services via an ad hoc network, said service users will therefore have access to a greater number of services after having communicated with said service advertisers thus expanding their functionality).

Regarding Claim 27, Beck teaches in a wireless communication system including a plurality of wireless terminals in wireless communication with each other including providing sharing of functions between the wireless terminals (Figure 1, Column 3 lines 41 – 43, Column 3 lines 52 – 53, Column 4 lines 6 – 13, Column 4 lines 63 – 67, Column 5 lines 1 – 22, Column 5 lines 38 – 60, the mobile devices (service users) can access other needed services, that said service users do not possess, by communicating with other mobile devices (service advertisers) that have said services via an ad hoc network, said service users will therefore have access to a greater number of services thus expanding their functionality), at least one function, in addition to performing the wireless communication with other wireless terminals, wherein the at least one function is commonly performed by individual wireless terminals (Figure 1, Column 3 lines 41 – 43, Column 3 lines 52 – 53, Column 4 lines 6 – 13, Column 4 lines

61 – 63, the mobile devices can perform the function of advertising services and using services); and at least one additional function, which is not common to the individual wireless terminals and is shared while individual wireless terminals are in communication with one another so that the individual wireless terminals have availability to perform a greater number of functions, in addition to performing wireless communication, than the individual wireless terminals have while not in communication with one another (Column 4 lines 63 – 67, Column 5 lines 1 – 22, Column 5 lines 38 – 60, the mobile devices (service users) can access other needed services, that said service users do not possess, by communicating with other mobile devices (service advertisers) that have said services via an ad hoc network, said service users will therefore have access to a greater number of services thus expanding their functionality); and wherein sharing of the at least one function which is not common to the wireless terminals may occur between the wireless terminals (Column 4 lines 63 – 67, Column 5 lines 1 – 22, Column 5 lines 38 – 60, the mobile devices (service users) can access other needed services, that said service users do not possess, by communicating with other mobile devices (service advertisers) that have said services via an ad hoc network, said service users will therefore have access to a greater number of services thus expanding their functionality).

Beck does not teach a predefined group of wireless terminals in which users of the plurality of wireless terminals decide to form the group and after formation of the group the plurality of wireless terminals are recognized by an identification thereof as being members of the group, a wireless terminal comprising: a transmitter; a receiver; a

communication device for handling transmitted and received wireless messages respectively transmitted by the transmitter and received by the receiver, and the wireless terminals determine if each of the wireless terminals belonging to the predefined group has a recognized identification in the wireless communication system and upon confirmation received by the wireless communication system from the wireless terminals that the wireless terminals have the recognized identification, the wireless communication system initiates a group session with the predefined group.

Haartsen teaches a predefined group of wireless terminals (Page 1655, Section B (Piconets), 1st Paragraph lines 1 – 8, the Bluetooth devices can move into the neighborhood of preexisting or predefined piconets thus a Bluetooth system has predefined groups), and after formation of the group, the plurality of wireless terminals are recognized by an identification thereof as being members of the group (Page 1655, Section A (Establishing Connections), 4th Paragraph, a piconet will not be formed unless the identification of the terminals is determined thus after said piconet is formed said terminals will be recognized by said identification as being members of said piconet), a wireless terminal comprising: a transmitter; a receiver; a communication device for handling transmitted and received wireless messages respectively transmitted by the transmitter and received by the receiver (Section II (Bluetooth Air Interface), 4th Bullet), and the wireless terminals determine if each of the wireless terminals belonging to the predefined group has a recognized identification in the wireless communication system (Page 1655, Section A (Establishing Connections), 4th Paragraph, Section B (Piconets), 1st Paragraph lines 6 – 10, any of the slaves can become masters thereby enabling said

slaves to determine if the other terminals in the predefined group has a recognized identification) and upon confirmation received by the wireless communication system from the wireless terminals that the wireless terminals have the recognized identification, the wireless communication system initiates a group session with the predefined group (Page 1655, Section A (Establishing Connections), 4th Paragraph, when the wireless terminals have responded with the identification information said wireless units can be paged and a piconet can be formed thereby enabling a group session to be established).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the predefined group, wireless terminal, and group communication method taught by Haartsen in the ad hoc network of Beck as the ad hoc network of Beck uses a Bluetooth protocol and for the purposes of enabling each mobile device to autonomously identify other mobile devices so as to build up a flexible communication network and enabling the mobile devices to communicate bi-directionally as taught by Haartsen.

Beck in view of Haartsen does not teach a predefined group in which users of the plurality of wireless terminals decide to form the group.

Lunsford teaches users of the plurality of wireless terminals deciding to form a group (Column 2 lines 45 – 59, Column 3 lines 17 – 49).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Beck in view of Haartsen with the decision method of Lunsford for the purpose of enabling the users of handheld Bluetooth

terminals to request and retrieve desired information that other users of other handheld Bluetooth terminals possess as taught by Lunsford.

Regarding Claim 28, Beck in view of Haartsen and in further view of Lunsford teaches all of the claimed limitations recited in Claim 27. Beck further teaches wherein at least one function is a software application (Column 5 lines 38 – 64, the additional services are software applications).

Regarding Claim 29, Beck teaches a plurality of wireless terminals which wirelessly communicate with each other including providing sharing of functions between the wireless terminals (Figure 1, Column 3 lines 41 – 43, Column 3 lines 52 – 53, Column 4 lines 6 – 13, Column 4 lines 63 – 67, Column 5 lines 1 – 22, Column 5 lines 38 – 60, the mobile devices (service users) can access other needed services, that said service users do not possess, by communicating with other mobile devices (service advertisers) that have said services via an ad hoc network, said service users will therefore have access to a greater number of services thus expanding their functionality); individual wireless terminals performing at least one function while in communication with one another, in addition to performing wireless communication, wherein the at least one function is common to all wireless terminals (Figure 1, Column 3 lines 41 – 43, Column 3 lines 52 – 53, Column 4 lines 6 – 13, Column 4 lines 61 – 63, the mobile devices can perform the function of advertising services and using services); and at least one of the individual wireless terminals performing at least one additional function, which is not a function common to the individual wireless terminals and is shared with the individual wireless terminals (Column 4 lines 63 – 67, Column 5 lines 1

– 22, Column 5 lines 38 – 60, the mobile devices (service users) can access other needed services, that said service users do not possess, by communicating with other mobile devices (service advertisers) that have said services via an ad hoc network, this means that said service advertisers possess additional functionalities that said service users do not possess, said service users will therefore have access to a greater number of services thus expanding their functionality); and wherein sharing of the at least one function which is not common to the wireless terminals may occur between the wireless terminals (Column 4 lines 63 – 67, Column 5 lines 1 – 22, Column 5 lines 38 – 60, the mobile devices (service users) can access other needed services, that said service users do not possess, by communicating with other mobile devices (service advertisers) that have said services via an ad hoc network, said service users will therefore have access to a greater number of services thus expanding their functionality).

Beck does not teach a plurality of wireless terminals forming a predefined group in which users of the plurality of wireless terminals decide to form the group and after formation of the group the plurality of wireless terminals are recognized by an identification thereof as being members of the group, one of the wireless terminals of the group being a master terminal which controls interactions between the plurality of wireless terminals of the group, and the wireless terminals determine if each of the wireless terminals belonging to the predefined group has a recognized identification in the wireless communication system and upon confirmation that the wireless terminals have the recognized identification, the wireless communication system initiates a group session with the predefined group.

Haartsen teaches a plurality of wireless terminals forming a predefined group (Page 1655, Section B (Piconets), 1st Paragraph lines 1 – 8, the Bluetooth devices can move into the neighborhood of preexisting or predefined piconets thus a Bluetooth system has predefined groups) and after formation of the group, the plurality of wireless terminals are recognized by an identification thereof as being members of the group (Page 1655, Section A (Establishing Connections), 4th Paragraph, a piconet will not be formed unless the identification of the terminals is determined thus after said piconet is formed said terminals will be recognized by said identification as being members of said piconet), one of the wireless terminals of the group being a master terminal which controls interactions between the plurality of wireless terminals of the group (Page 1655, Section B (Piconets), 1st Paragraph lines 1 – 8), and the wireless terminals determine if each of the wireless terminals belonging to the predefined group has a recognized identification in the wireless communication system (Page 1655, Section A (Establishing Connections), 4th Paragraph, Section B (Piconets), 1st Paragraph lines 6 – 10, any of the slaves can become masters thereby enabling said slaves to determine if the other terminals in the predefined group has a recognized identification) and upon confirmation that the wireless terminals have the recognized identification, the wireless communication system initiates a group session with the predefined group (Page 1655, Section A (Establishing Connections), 4th Paragraph, when the wireless terminals have responded with the identification information said wireless units can be paged and a piconet can be formed thereby enabling a group session to be established).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the predefined group and group communication method taught by Haartsen in the ad hoc network of Beck as the ad hoc network of Beck uses a Bluetooth protocol and for the purpose of enabling each mobile device to autonomously identify other mobile devices so as to build up a flexible communication network as taught by Haartsen.

Beck in view of Haartsen does not teach a predefined group in which users of the plurality of wireless terminals decide to form the group.

Lunsford teaches users of the plurality of wireless terminals deciding to form a group (Column 2 lines 45 – 59, Column 3 lines 17 – 49).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Beck in view of Haartsen with the decision method of Lunsford for the purpose of enabling the users of handheld Bluetooth terminals to request and retrieve desired information that other users of other handheld Bluetooth terminals possess as taught by Lunsford.

Regarding Claim 30, Beck in view of Haartsen and in further view of Lunsford teaches all of the claimed limitations recited in Claim 29. Beck further teaches wherein the wireless communication link is a low power radio frequency (Column 3 lines 52 – 53, a Bluetooth network comprises low power radio frequency links).

Regarding Claim 31, Beck in view of Haartsen and in further view of Lunsford teaches all of the claimed limitations recited in Claim 30. Beck further teaches wherein

the additional function is a software application (Column 5 lines 38 – 64, the additional services are software applications).

Regarding Claim 32, Beck in view of Haartsen and in further view of Lunsford teaches all of the claimed limitations recited in Claim 29. Haartsen further teaches wherein the group includes a minimum of two and a maximum of seven wireless terminals (Page 1655, Section B (Piconets), 1st Paragraph lines 1 – 8, a typical piconet can include a minimum of two and a maximum of seven terminals).

Regarding Claim 33, Beck teaches a plurality of wireless terminals which wirelessly communicate with each other including providing sharing of functions between the wireless terminals (Figure 1, Column 3 lines 41 – 43, Column 3 lines 52 – 53, Column 4 lines 6 – 13, Column 4 lines 63 – 67, Column 5 lines 1 – 22, Column 5 lines 38 – 60, the mobile devices (service users) can access other needed services, that said service users do not possess, by communicating with other mobile devices (service advertisers) that have said services via an ad hoc network, said service users will therefore have access to a greater number of services thus expanding their functionality); individual wireless terminals performing at least one function while in communication with one another, in addition to performing wireless communication, wherein the at least one function is common to all wireless terminals (Figure 1, Column 3 lines 41 – 43, Column 3 lines 52 – 53, Column 4 lines 6 – 13, Column 4 lines 61 – 63, the mobile devices can perform the function of advertising services and using services); and at least one of the individual wireless terminals performing at least one additional function, which is not a function common to the individual wireless terminals and is

shared with the individual wireless terminals (Column 4 lines 63 – 67, Column 5 lines 1 – 22, Column 5 lines 38 – 60, the mobile devices (service users) can access other needed services, that said service users do not possess, by communicating with other mobile devices (service advertisers) that have said services via an ad hoc network, this means that said service advertisers possess additional functionalities that said service users do not possess, said service users will therefore have access to a greater number of services thus expanding their functionality); and wherein sharing of the at least one function which is not common to the wireless terminals may occur between the wireless terminals (Column 4 lines 63 – 67, Column 5 lines 1 – 22, Column 5 lines 38 – 60, the mobile devices (service users) can access other needed services, that said service users do not possess, by communicating with other mobile devices (service advertisers) that have said services via an ad hoc network, said service users will therefore have access to a greater number of services thus expanding their functionality).

Beck does not teach a plurality of wireless terminals forming a predefined group in which users of the plurality of wireless terminals decide to form the group, wherein at least one wireless terminal in the group may be removed from the group by a remainder of the wireless terminals in the group, and after formation of the group the plurality of wireless terminals are recognized by an identification thereof as being members of the group, one of the wireless terminals of the group being a master terminal which controls interactions between the plurality of wireless terminals of the group, and the wireless terminals determine if each of the wireless terminals belonging to the predefined group has a recognized identification in the wireless communication system and upon

confirmation that the wireless terminals have the recognized identification, the wireless communication system initiates a group session with the predefined group.

Haartsen teaches a plurality of wireless terminals forming a predefined group (Page 1655, Section B (Piconets), 1st Paragraph lines 1 – 8, the Bluetooth devices can move into the neighborhood of preexisting or predefined piconets thus a Bluetooth system has predefined groups), wherein at least one wireless terminal in the group may be removed from the group by a remainder of the wireless terminals in the group (Page 1654, Section III (AD HOC CONNECTIVITY), in a typical Bluetooth system, members of an established piconet can deny a new member's request to join said piconet, the new member is blocked or removed from the established piconet by the members of said piconet), and after formation of the group, the plurality of wireless terminals are recognized by an identification thereof as being members of the group (Page 1655, Section A (Establishing Connections), 4th Paragraph, a piconet will not be formed unless the identification of the terminals is determined thus after said piconet is formed said terminals will be recognized by said identification as being members of said piconet), one of the wireless terminals of the group being a master terminal which controls interactions between the plurality of wireless terminals of the group (Page 1655, Section B (Piconets), 1st Paragraph lines 1 – 8), and the wireless terminals determine if each of the wireless terminals belonging to the predefined group has a recognized identification in the wireless communication system (Page 1655, Section A (Establishing Connections), 4th Paragraph, Section B (Piconets), 1st Paragraph lines 6 – 10, any of the slaves can become masters thereby enabling said slaves to determine if the other

terminals in the predefined group has a recognized identification) and upon confirmation that the wireless terminals have the recognized identification, the wireless communication system initiates a group session with the predefined group (Page 1655, Section A (Establishing Connections), 4th Paragraph, when the wireless terminals have responded with the identification information said wireless units can be paged and a piconet can be formed thereby enabling a group session to be established).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the predefined group and group communication method taught by Haartsen in the ad hoc network of Beck as the ad hoc network of Beck uses a Bluetooth protocol and for the purpose of enabling each mobile device to autonomously identify other mobile devices so as to build up a flexible communication network as taught by Haartsen.

Beck in view of Haartsen does not teach a predefined group in which users of the plurality of wireless terminals decide to form the group.

Lunsford teaches users of the plurality of wireless terminals deciding to form a group (Column 2 lines 45 – 59, Column 3 lines 17 – 49).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Beck in view of Haartsen with the decision method of Lunsford for the purpose of enabling the users of handheld Bluetooth terminals to request and retrieve desired information that other users of other handheld Bluetooth terminals possess as taught by Lunsford.

Regarding Claim 34, Beck in view of Haartsen and in further view of Lunsford teaches all of the claimed limitations recited in Claim 29. Beck further teaches wherein at least one additional function becomes available only when there is a minimum number of terminals (Column 4 lines 6 – 9, Column 4 lines 63 – 67, Column 5 lines 1 – 22, Column 5 lines 38 – 64, the mobile devices (service users) can access other needed services, that said service users do not possess, by communicating with other mobile devices (service advertisers) that have said services via an ad hoc network, said service users will therefore have access to a greater number of services thus expanding their functionality, the number of mobile devices can be any number thus there can be a minimum number of said mobile devices).

Regarding Claim 35, Beck in view of Haartsen and in further view of Lunsford teaches all of the claimed limitations recited in Claim 29. Beck further teaches wherein at least one additional function becomes available and is available for a single terminal of the group after having been a member of the group (Column 4 lines 63 – 67, Column 5 lines 1 – 22, Column 5 lines 38 – 60, the mobile devices (service users) can access other needed services, that said service users do not possess, by communicating with other mobile devices (service advertisers) that have said services via an ad hoc network, said service users will therefore have access to a greater number of services after having communicated with said service advertisers thus expanding their functionality).

Regarding Claim 36, Beck in view of Haartsen and in further view of Lunsford teaches all of the claimed limitations recited in Claim 19. Haartsen further teaches

information is exchanged in the group which is used by the group to determine if an individual wireless terminal belongs in the group of wireless terminals (Page 1655, Section A (Establishing Connections), 4th Paragraph, the mobile terminals must respond to the inquiry message with a Frequency Hop Synchronization (FHS) packet which includes the Bluetooth Address (BD_ADDR) and a clock, if said mobile terminals do not respond to the inquiry message with said FHS packet said mobile terminals do not belong to the group).

Regarding Claim 37, Beck in view of Haartsen and in further view of Lunsford teaches all of the claimed limitations recited in Claim 19. Haartsen further teaches wherein the group has rules, which control use of information by the group (Page 1655, Section A (Establishing Connections), 3rd Paragraph, the paging procedure has rules that the paging unit and recipient must follow in order to establish a piconet so that information can be exchanged).

Regarding Claim 38, Beck in view of Haartsen and in further view of Lunsford teaches all of the claimed limitations recited in Claim 27. Haartsen further teaches information is exchanged in the group which is used by the group to determine if an individual wireless terminal belongs in the group of wireless terminals (Page 1655, Section A (Establishing Connections), 4th Paragraph, the mobile terminals must respond to the inquiry message with a Frequency Hop Synchronization (FHS) packet which includes the Bluetooth Address (BD_ADDR) and a clock, if said mobile terminals do not respond to the inquiry message with said FHS packet said mobile terminals do not belong to the group).

Regarding Claim 39, Beck in view of Haartsen and in further view of Lunsford teaches all of the claimed limitations recited in Claim 27. Haartsen further teaches wherein the group has rules, which control use of information by the group (Page 1655, Section A (Establishing Connections), 3rd Paragraph, the paging procedure has rules that the paging unit and recipient must follow in order to establish a piconet so that information can be exchanged).

Regarding Claim 40, Beck in view of Haartsen and in further view of Lunsford teaches all of the claimed limitations recited in Claim 29. Haartsen further teaches information is exchanged in the group which is used by the group to determine if an individual wireless terminal belongs in the group of wireless terminals (Page 1655, Section A (Establishing Connections), 4th Paragraph, the mobile terminals must respond to the inquiry message with a Frequency Hop Synchronization (FHS) packet which includes the Bluetooth Address (BD_ADDR) and a clock, if said mobile terminals do not respond to the inquiry message with said FHS packet said mobile terminals do not belong to the group).

Regarding Claim 41, Beck in view of Haartsen and in further view of Lunsford teaches all of the claimed limitations recited in Claim 29. Haartsen further teaches wherein the group has rules, which control use of information by the group (Page 1655, Section A (Establishing Connections), 3rd Paragraph, the paging procedure has rules that the paging unit and recipient must follow in order to establish a piconet so that information can be exchanged).

Regarding Claim 42, Beck in view of Haartsen and in further view of Lunsford teaches all of the claimed limitations recited in Claim 19. Beck further teaches the wireless terminals use the at least one common function and the al least one function which is not common to interact to perform a common application (Column 5 lines 38 – 67, Column 6 lines 1 – 2, Column 6 lines 29 – 40, the client software, which performs the function of using services, will interact with or use the new service, which is an uncommon function, the use of said new service is the common application).

Regarding Claim 43, Beck in view of Haartsen and in further view of Lunsford teaches all of the claimed limitations recited in Claim 27. Beck further teaches the wireless terminals use the at least one common function and the al least one function which is not common to interact to perform a common application (Column 5 lines 38 – 67, Column 6 lines 1 – 2, Column 6 lines 29 – 40, the client software, which performs the function of using services, will interact with or use the new service, which is an uncommon function, the use of said new service is the common application).

Regarding Claim 44, Beck in view of Haartsen and in further view of Lunsford teaches all of the claimed limitations recited in Claim 29. Beck further teaches the wireless terminals use the at least one common function and the al least one function which is not common to interact to perform a common application (Column 5 lines 38 – 67, Column 6 lines 1 – 2, Column 6 lines 29 – 40, the client software, which performs the function of using services, will interact with or use the new service, which is an uncommon function, the use of said new service is the common application).

Regarding Claim 45, Beck in view of Haartsen and in further view of Lunsford teaches all of the claimed limitations recited in Claim 19. Beck further teaches the at least one common function and the at least one function which is not common are a set of functions which are shared while in the group (Column 4 lines 61 – 63, Column 5 lines 38 – 67, Column 6 lines 1 – 2, Column 6 lines 29 – 40, the client software of the requesting mobile devices (service users) will interact with the new services of other mobile devices (service advertisers) thus said client software and said new services will be shared amongst said mobile devices).

Regarding Claim 46, Beck in view of Haartsen and in further view of Lunsford teaches all of the claimed limitations recited in Claim 27. Beck further teaches the at least one common function and the at least one function which is not common are a set of functions which are shared while in the group (Column 4 lines 61 – 63, Column 5 lines 38 – 67, Column 6 lines 1 – 2, Column 6 lines 29 – 40, the client software of the requesting mobile devices (service users) will interact with the new services of other mobile devices (service advertisers) thus said client software and said new services will be shared amongst said mobile devices).

Regarding Claim 47, Beck in view of Haartsen and in further view of Lunsford teaches all of the claimed limitations recited in Claim 29. Beck further teaches the at least one common function and the at least one function which is not common are a set of functions which are shared while in the group (Column 4 lines 61 – 63, Column 5 lines 38 – 67, Column 6 lines 1 – 2, Column 6 lines 29 – 40, the client software of the requesting mobile devices (service users) will interact with the new services of other

mobile devices (service advertisers) thus said client software and said new services will be shared amongst said mobile devices).

Regarding Claim 48, Beck in view of Haartsen and in further view of Lunsford teaches all of the claimed limitations recited in Claim 42. Beck further teaches the at least one common function and the at least one function which is not common are a set of functions which are shared while in the group (Column 4 lines 61 – 63, Column 5 lines 38 – 67, Column 6 lines 1 – 2, Column 6 lines 29 – 40, the client software of the requesting mobile devices (service users) will interact with the new services of other mobile devices (service advertisers) thus said client software and said new services will be shared amongst said mobile devices).

Regarding Claim 49, Beck in view of Haartsen and in further view of Lunsford teaches all of the claimed limitations recited in Claim 43. Beck further teaches the at least one common function and the at least one function which is not common are a set of functions which are shared while in the group (Column 4 lines 61 – 63, Column 5 lines 38 – 67, Column 6 lines 1 – 2, Column 6 lines 29 – 40, the client software of the requesting mobile devices (service users) will interact with the new services of other mobile devices (service advertisers) thus said client software and said new services will be shared amongst said mobile devices).

Regarding Claim 50, Beck in view of Haartsen and in further view of Lunsford teaches all of the claimed limitations recited in Claim 44. Beck further teaches the at least one common function and the at least one function which is not common are a set of functions which are shared while in the group (Column 4 lines 61 – 63, Column 5

lines 38 – 67, Column 6 lines 1 – 2, Column 6 lines 29 – 40, the client software of the requesting mobile devices (service users) will interact with the new services of other mobile devices (service advertisers) thus said client software and said new services will be shared amongst said mobile devices).

Conclusion

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Raymond S. Dean whose telephone number is 571-272-7877. The examiner can normally be reached on 6:00-2:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nay A. Maung can be reached on 571-272-7882. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Raymond S. Dean
January 13, 2006

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